

REMARKS/ARGUMENTS

Claims 2-22 and 29-37 as amended through the above claims amendments are currently pending in the present patent application. The Office Action erroneously indicates the pending claims are 2-37 (see page 2) and 1-37 (see page 3). The present response addresses the rejections set forth in the Office Action as they relate to the properly pending claims 2-22 and 29-37.

In the Office Action mailed July 25, 2007, the Examiner rejects pending claims 2-22 and 29-37 under the judicially created doctrine of double patenting (nonstatutory double patenting) in view of U.S. Patent Appln. No. 09/956,624. A terminal disclaimer accompanies this amendment and obviates this rejection.

The Examiner also rejects claims 2-22 and 29-37 in the Office Action under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 5,469,361 to Moyne ("Moyne") in view of U.S. Patent No. 5,980,078 to Krovoshein et al. ("Krovoshein"). The Examiner admits Moyne does not disclose a signal database that manages communication between a hardware subsystem and an application service system and a self configuring interface system, but asserts Krovoshein discloses these elements and that it would have been obvious to one skilled in the art to combine Krovoshein and Moyne because it would be have been desirable for users to implement "because it provides the ability to support automatic sensing of devices." See page 5 of the Office Action.

An embodiment of the present invention covered by claim 5 is depicted in Figure 3 of the present application, as previously discussed in the prior amendment, to help the Examiner appreciate certain distinctions between the subject matter of the present application and the applied prior art references. These embodiments will not again be discussed in detail in this response, but the Examiner is referred to these prior discussions to provide helpful context for the following remarks. Briefly, the configuration and initialization module 332 retrieves from the signal database 400 (Figure 1) configuration information describing one or more signal exchange modules 214 within an electrical interface unit 210 (Figure 2) to which the framework services module 330 is coupled. The configuration and initialization module 332 thereafter

builds, generates, or retrieves portions of a hardware interface module 350 for communicating with a given signal exchange module 214. The interface may include one or more location identifiers that uniquely specify where the signal exchange module 214 physically and/or logically resides and a communication interface definition for the signal exchange module 214, which may include a port number, interrupt definitions, and/or storage element identifications and/or descriptions. With this embodiment of the present invention, sensing and/or control subsystems 120 (Figure 1) may be changed at will and the corresponding signal exchange module 214 (Figure 2) modified via the signal database 400 to properly communicate with the subsystems.

Krovoshein discloses no such signal database 400 that stores interface configuration information corresponding to a manner of managing communication between the hardware subsystem and the application services system. Instead, Krovoshein, as does Moyne, assumes communication via a predefined in standardized communications protocol.

Claim 5 recites, in part, a system including a hardware subsystem, an application database, a self-configuring application services system, and a signal database storing interface configuration information corresponding to a manner of managing communication between the hardware subsystem and the application services system. A self-configuring interface system is coupled to the hardware subsystem and the application services system and includes a configuration module coupled to retrieve interface configuration information from the signal database.

The Examiner has not shown that Krovoshein discloses or suggests a self-configuring interface system includes a configuration module coupled to retrieve interface configuration information from the signal database. Instead, the communication is only through the predetermined communications protocol utilized in the digital control system of Krovoshein.

For these reasons, the combination of elements recited in claim 5 is allowable. Dependent claims 2-4 and 6-11 are allowable for at least the same reasons as claim 5 and due to the additional limitations added by each of these dependent claims.

Independent claim 12 recites a system including a hardware subsystem, an application database referencing a first software object that corresponds to a manner of processing information associated with an electrical signal. A self-configuring application services system includes a configuration module coupled to the hardware subsystem and is coupled to retrieve application service configuration information from the application database, and includes the first software object. A signal database stores interface configuration information corresponding to a manner of managing communication between the hardware subsystem and the application services system and references a second software object that corresponds to a manner of processing information associated with an electrical signal and associates an event code with the electrical signal. A self-configuring interface system is coupled to the hardware subsystem and the application services system and includes a configuration module coupled to retrieve interface configuration information from the signal database and the second software object.

Once again, the Examiner has not shown that Krovoshein discloses or suggests the recited configuration module coupled to retrieve interface configuration information from the signal database. In Krovoshein the communication is only through the predetermined communications protocol utilized in the digital control system of Krovoshein.

For these reasons, the combination of Moyne and Krovoshein neither discloses nor suggest the elements recited in claim 12. Dependent claims 13-22 are allowable for at least the same reasons as claim 12 and due to the additional limitations added by each of these dependent claims.

Independent claim 29 recites a method for processing electrical signals in a system including a hardware subsystem that includes a set of components adapted to carry electrical signals, each electrical signal associated with one from the group of a sensing operation and a control operation. The method includes retrieving application service configuration information that associates a first set of software objects with at least one electrical signal and retrieving the first set of software objects in accordance with the application service configuration information. The method further includes retrieving interface configuration information that corresponds to the hardware

subsystem and which associates a second set of software objects with at least one electrical signal and automatically generating a hardware interface for managing communication between the software object and the hardware subsystem in accordance with the interface configuration information, the interface including associating an event code with each electrical signal.

The combination of Moyne and Krovoshein neither discloses nor suggests retrieving interface configuration information that corresponds to the hardware subsystem and which associates a second set of software objects with at least one electrical signal and automatically generates a hardware interface for managing communication between the software object and the hardware subsystem. The Examiner has not shown that Krovoshein discloses a self-configuring interface system includes a configuration module coupled to retrieve interface configuration information from the signal database. Instead, in Krovoshein the communication is only through the predetermined communications protocol utilized in the digital control system of Krovoshein.

For these reasons, the combination of elements recited in claim 29 is allowable and dependent claims 30-37 are allowable for at least the same reasons as claim 29 and due to the additional limitations added by each of these dependent claims.

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The present patent application is in condition for allowance. Favorable consideration and a Notice of Allowance are respectfully requested. **Should the Examiner have any further questions about the application, Applicant respectfully requests the Examiner to contact the undersigned attorney at (425) 455-5575 to arrange for a telephone interview to discuss the outstanding issues.** If the need for any fee in addition to any fee paid with this response is found, for any reason or at any point during the prosecution of this application, kindly consider this a petition therefore and charge any necessary fees to Deposit Account 07-1897.

Respectfully submitted,

GRAYBEAL JACKSON HALEY LLP

A handwritten signature in black ink, appearing to read "Paul F. Rusyn". The signature is fluid and cursive, with a large initial "P" and "R".

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